

Teacher Professional Development: One Big Idea and Five Core Strategies

- By Kathy Dyer
- December 17, 2012



Many of the formative assessment strategies and techniques that we've blogged about are what teachers can use to elicit evidence of student learning – the first step in understanding how they need to make changes in how they teach students. These formative assessment strategies are all born out of one big idea and five key strategies that not only make up our Keeping Learning on Track™ (KLT) embedded teacher professional development, but are the foundation for Black and Williams' research in *Inside the Black Box*.

The one big idea is fundamental to improving student learning. **That is, students and teachers continuously using evidence of learning to adapt what happens in the classroom.** If educators can truly understand whether all students comprehend learning targets, they can effect positive change. The five key strategies that support this one big idea ultimately lead to the formative assessment strategies and techniques:

- 1. Clarifying, sharing, and understanding learning targets and success criteria.** The students need to know what they are being taught, and what the measurements for success are, so setting expectations is crucial.
- 2. Engineering effective classroom discussions, questions, and learning tasks that elicit evidence of learning.** This is certainly core to formative assessment techniques that ultimately get introduced into the classroom, but also a key part of the teacher professional development that KLT structures.
- 3. Providing feedback that moves learners forward.** More than a grade, the feedback needs to be instructive and come not only from teachers but fellow students.
- 4. Activating students as the owners of their own learning.** The students need to become involved in their own education and having them assess their own work can play a role in this. One of our previous blogs highlighted the research behind this thinking.
- 5. Activating students as instructional resources for one another.** Collaboration among students is just as important as collaboration among teachers in improving student learning.

Breaking down teacher professional development into one big idea and five core strategies makes success achievable and realistic. By focusing one or two strategies at a time, and seeing what works in their classroom, teachers can share success collaboratively and improve student learning.

<http://www.nwea.org/blog/2012/teacher-professional-development-one-big-idea-and-five-core-strategies/>

Dylan Wiliam: Unpacking Formative Assessment

- By Kathy Dyer
- January 7, 2013

At Fusion 2012 back in June, Dylan Wiliam spoke about the general confusion that hangs over the definition of formative assessment. In fact, we even wrote a blog entitled *What is Formative Assessment?* to address this confusion and define what we think it means. Here's our definition:

A planned practice to elicit evidence of learning minute to minute, day by day in the classroom; along with non-summative assessments that occur while content is still being taught. Both of these can inform teachers of what students know or do not know, help students understand what it is they are ready to learn next, so teachers can adjust their instruction accordingly for each of their students.

In his keynote at the event, Dylan touched on "unpacking" formative assessment. You can watch that excerpt below, but the visual here also unpacks it nicely, with the three tracks of where the learner is going, where the learner is, and how to get there, supported by the five strategies of formative assessment that we've also blogged about recently.

	Where the learner is going	Where the learner is	How to get there
Teacher	Clarifying, sharing and understanding learning intentions	Engineering effective discussions, tasks, and activities that elicit evidence of learning	Providing feedback that moves learners forward
Peer		Activating students as learning resources for one another	
Learner		Activating students as owners of their own learning	

Dylan's thoughts and the above illustration are really what make up our Keeping Learning on Track teacher professional development program. If you haven't as yet checked it out and are looking for a teacher PD program for your school or district it might be worth a peek. We'd love your thoughts as well, so drop a comment below.

<http://www.nwea.org/blog/2013/dylan-wiliam-unpacking-formative-assessment/>

Questioning Techniques

This is a list to help remind you about all of different ideas for questioning in your classroom:

1. Wait Time: Give students time to think after you pose a question to the group. Research has show that even giving students 3 to 5 seconds to process a question increases quality and quantity of responses dramatically.
2. "No Hands Up": Unless they are specifically asked to, students are told NOT to raise their hands when a question is asked. All students should be ready to answer a question, even if the response is, "I don't know."
3. Spiral Questioning: Lessons and questions need to be carefully structured to lead students through a step-by-step process of discovery. Students should first explore using basic cognitive skills- observation, description, identification, recall and then spiral to eventually higher levels of cognition such as synthesis, application and interpretation through class discussions.
4. ABCDE Cards: The teacher asks or presents a multiple-choice question, and then asks students to simultaneously ("on the count of three") hold up one or more cards, labeled A, B, C, D, or E as their individual response. ABCDE cards can be cheaply made on 4 inch x 6 inch white cardstock printed with one black, bold-print letter per card. A full set might include the letters A-H plus T. This format allows all students to select not only one correct answer, but multiple correct answers, or to answer true/false questions. This is an example of an "all-class response system" that helps the teacher to quickly get a sense of what students know or understand while engaging all students in the class. The teacher may choose to ask the question orally or to present it to the class on an overhead. The teacher then uses the information in the student responses to adapt and organize the ensuing discussion or lesson.
5. Socratic Seminar: Ask students to write down questions that they have about concepts at the end of a lesson or unit. Organize the students into small groups and designate one person to be the facilitator to guide the group discussion. Students can put forth one of their questions to the group for discussion and then the next student can ask their question. The teacher can assist any group that needs support, and/or use this as an opportunity for observation of student learning.
6. Inquiry Questioning:
Why do you think that?
How do you know?
Could you give me an example?
What do you mean when you say . . . ?
What data/examples do you have to support your position?
Tell me more about . . . ?
How might you validate or confirm . . . ?
7. "Add on" Responses: Ask students to "add on" to what another student has said. Often student's thinking is triggered by another person's response to a question. It's a good time to ask a more reluctant participant to give their input.
8. White Board Responses: In order to get a quick snap shot of understanding, give each child a small white board to record a short (one or two word) response to a question. Students can hold them up and teachers can take a look around the room to see how things are progressing.
9. Tongue Depressor Questioning: Write each student's name on a tongue depressor. Place them in a cup and pull one out when you want to ask a question to the group. The child whose name is picked can answer the question, or if they don't know the answer, pick the next stick.
10. Using DOK to Design Questions that Elicit Understanding: Always consider the level of the questions you are asking. If you ask recall type questions, expect discussions that are less deep in understanding of concepts.

The focus of these techniques is to gather the most possible information about what your students know and don't know. Having this information about your students can guide your instruction as immediately as is practical!

Seinfeld Clip Transcript

During the 6 minute clip, the teacher asks 25 questions of his high school social studies class. Of the responses given by the students, only a couple, are the answers that the teacher is looking for. Despite the fact that this was a skit from Saturday Night Live, it's all too familiar to those of us who have ever been in front of a group of children who may have received less than perfect instruction.

Here are the 25 questions asked in the clip. Let's look at the value of the questions in general. What would you have asked the students instead?

Now is everybody with me on this?

Let's talk about the Lend-Lease Act and the Battle of Britain. How are these two things linked in history?

Everybody with me?

Roosevelt said that America must be the great arsenal of Democracy. What did Roosevelt mean by that? We must be the great arsenal- what did he mean by that?

What country did Roosevelt want to supply with weapons?

Who can tell me?

We're talking about the Battle of _____?

Roosevelt wants to help Britain in the war against who?

Who is Britain at war with?

What was happening in Europe in the 1930's?

Let me put it this way, in the decade before World War II, what was happening in Europe?

What political group was in power at the time?

Name some of the countries in Europe besides France.

Let's look at the map up here. Where is Europe on the map?

Anyone?

Is this Europe? Show of hands, is this Europe?

What are some of the countries in Europe?

Can someone name another?

What political group was in power in Germany at this time?

How many of you saw "Raiders of the Lost Arc"?

Who, in the movie, was Indiana Jones fighting-besides the snakes?

He was fighting the na-na-na-na Nazi's!?

What did the Nazi's do? Let's think!

The Nazi's were in power in Germany. Who was England at war with during the Battle of Britain?

Not France, but...??

Growing A Teacher's Own Student-Growth Evidence

By W. James Popham, University of California, Los Angeles

In 2009, ASCD published my book, *Instruction That Measures Up: Successful Teaching in the Age of Accountability*, that I wrote well before *Race to the Top* raced its way into our consciousness. In Chapter 6, entitled “Evaluating Instruction,” I suggested that a potent form of evaluative evidence—evidence by which a teacher’s instruction might be judged—could be the data collected from teacher-made classroom assessments. Indeed, I argued that most of the tests then being used to evaluate instruction were *instructionally insensitive*, that is, unaccompanied by evidence showing those tests could accurately distinguish between well taught and badly taught students. Accordingly, if the evaluation of a teacher’s instruction were to be based on instructionally insensitive state tests or instructionally insensitive district-acquired tests, evidence of instructional effectiveness based on classroom assessments could be far more persuasive.

When collecting evidence of student growth via classroom assessments, however, not only do the results of such tests need to be constructed so they accurately gauge changes in students’ levels of achievement, but those results must also be seen as *credible*. Skeptics will often discount the importance of classroom-assessment evidence because they regard such evidence as likely to be contaminated by teachers’ self-serving conduct. In *Instruction That Measures Up*, I described several data-gathering designs that use variations of pre-test and post-test data-collection methods, coupled with blind scoring of students’ results by nonpartisan scorers, to show that it is possible for teachers to collect evidence of student growth that is both accurate and credible.

Summing up, teachers *can* grow defensible evidence of student growth by relying on teacher-made classroom assessments. But teachers need to learn how to build tests that accurately measure such growth—and how to administer and then score those tests so the world believes what they say.

W. James Popham is Emeritus Professor in the UCLA Graduate School of Education and Information Studies. He has spent most of his career as a teacher, largely at UCLA, where for nearly 30 years he taught courses in instructional methods for prospective teachers and graduate-level courses in evaluation and measurement. At UCLA he won several distinguished teaching awards, and in January 2000, he was recognized by UCLA Today as one of UCLA’s top 20 professors of the 20th century.

Teacher Says...	Student Says...
Teacher Does...	Student Does...

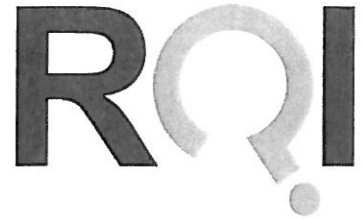
REVIEWING QFT CLASSROOM EXAMPLES

Directions:

- Review each step in the example. Look at how the steps in the process connect to each other.
- Write your observations about each section in the chart below.
- Share in your group your observations, comments, and questions.

STEPS	5 th grade EXAMPLE	HS EXAMPLE	YOUR OWN or a Colleague's QFT
Content listed			
Question Use			
The Question Focus (QFocus)			
The questions students produced			
Prioritization Instructions			
Outcomes or reflections			
What could come next in the inquiry cycle?			

5th grade Social Studies



Teacher: Joshua Beer
Grade: 5
Location: New Hampshire
Topic: Geography

CONTENT: Middle of unit

This QFT took place in the midway point of the study on Mexico and relations between Mexico and the U.S.

Standards - Geography learning standard

- SS:EC:3: Cycles in the Economy - SS:EC:6:3.2: Recognize the effects of inflation on people
- SS:EC:5: International Economics and Trade - SS:EC:8:5.4: Examine the effects of changing economies on international trade
- SS:GE:1: The World in Spatial Terms - SS:GE:6:1.2: Apply the spatial concepts of location, distance, direction, scale, movement, and region
- SS:GE:2: Places and Regions - SS:GE:8:2.2: Illustrate the connections among regions

QUESTION USE:

- Class discussion prior to listening to the NPR podcast to help understand the connections between geography, economics and culture

QUESTION FOCUS (QFOCUS):

“In Mexico and U.S., Lime Lovers Feel Squeezed by High Prices”

(Courtesy of NPR.org 3-26-14)

PRIORITIZATION INSTRUCTIONS:

“Choose the three most important or most compelling questions.”

OUTCOMES:

“I learned how to make better questions.” – student reflection

“It’s like I’m the teacher.” – student reflection

STUDENT QUESTIONS (PRIORITY)

Student A

- Why do limes have high prices? (O)

Student B

- Why would lime lovers feel squeezed by high prices? (O)
- Is it only Mexico and US that feels squeezed? (O) *

Student C

- Can limes be for helping people that are hurt? (C)
- Can limes be for curing sickness? (C)

Students categorize as...

(C) = Closed

(O) = Open

* Categorizing questions is a skill that needs to be taught as can be seen in the mistake in student B’s second question

High School: Global History



Teacher: Ariela Rothstein
Grade: 9-12 (transition school)
Location: New York, NY
Topic: British Imperialism in Iran

CONTENT: Middle of unit

The unit covers Sharia law, colonialism/ imperialism, Iran, and a political writing project. This QFT was used after colonialism/imperialism was introduced.

QUESTION USE:

- Students used their QFT-generated questions as a reading guide for the reading.

QUESTION FOCUS (Q-FOCUS):

“As a result of British imperialism taking control of tobacco in Persia/Iran, Persians quit smoking in 1891.”

PRIORITIZATION INSTRUCTIONS:

- Three most important questions as a historian
- One important question from a different perspective/ point of view

OUTCOMES:

- Lower-level students persevered through the difficult reading
- Higher-level students could be pushed to read more difficult text to find the answers to their QFT-generated questions

STUDENT QUESTIONS (PRIORITY)

Group A:

1. How did the quit affect Persia?
2. How did British imperialize Persian/Iran tobacco?
3. How long did it take for the Persians to quit smoking after the British control?

Group B:

1. Why was smoking an issue?
2. Was smoking a part of religion and tradition?
3. Were there any other supplements?

Group C:

1. Did Persia stop manufacturing tobacco products as a result in 1891?
2. How did the British get control over tobacco?

Group D:

1. Why did they do a boycott for tobacco?
2. Where was tobacco found in Iran?
3. What was the effect after the boycott was finished?

Cracking History's Cold Cases: A Research Project

The Task: Create a Case File

History is filled with unsolved mysteries. Your task in this research project is to choose one of those mysteries and present a plausible theory to explain it. You will research a variety of primary and secondary sources to uncover possible theories and the clues that support them. After you conclude your research, you will create a "Case File" that includes: background on the mystery, the most plausible theory, and a collection of annotated evidence that backs up that theory.

Steps

1. Choose your Cold Case (circle one)

The Great Chicago Fire

The Disappearance of Amelia Earhart

The Lost Colony of Roanoke

The Disappearance of Glenn Miller

2. Turn your Cold Case into a question: What do you want to know?

3. Visit the "Research Links" page on the History Detectives Website to start your research. After looking through a few of the secondary sources, write down at least two competing theories of your cold case below. (You may choose to return to this step and add more theories if you turn up something compelling later in your research).

Theory 1	
Theory 2	
Theory 3	
Theory 4	

4. Use the "Your Investigation, One Clue at a Time" graphic organizers to take notes. Your research should include a mix of primary and secondary sources. Remember, these historical events are mysteries for a reason: the sources will present you with

contradictions. Take note of discrepancies and base your conclusions on what you consider to be the most credible sources.

5. Review the evidence you have collected and answer the following questions:

a. What theory is most plausible?

b. What evidence can you present to support this theory? (Be sure your evidence includes primary sources as well as secondary ones.)

c. Explain one alternate theory and provide reasons—based in evidence!—as to why you discarded that theory.

d. What did you learn about this historical period from your investigation? Why is an investigation such as this an important undertaking?

6. Using the notes from the graphic organizers and this handout, prepare a “case file.” You may choose to create a poster, an essay, or a presentation. No matter your format, be sure your case file includes the following elements:

- Background on the Historical Event
- The Most Plausible Theory
- At least three pieces of evidence that support that theory
- An explanation of each piece of evidence you present
- Explanation of one alternate theory and your reasons for discarding it
- So what? Why was this investigation a worthwhile endeavor?

Your Investigation: One Clue at a Time

Directions: Use the graphic organizers below to document your research. Make additional copies as needed.

Question:	
Source Name:	Source Description:
What evidence or clue does this source reveal?	
Analyze the Evidence	
<i>Sourcing:</i> Who made it? When did they make it?	
<i>Contextualizing:</i> Why was this made? What historical events contributed to its making?	
<i>Close Examination:</i> What does it tell us? What was the creator's goal in making this? What does it tell us about the historical era?	
<i>Corroborating:</i> Do other documents confirm or contest what this resource tell us? What discrepancies, if any, are there?	
Further Investigation: What questions does this source raise?	

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